

Review of The Effect of ERP System Implementation on Business Performance : An Exploratory Case – Study

Abstract

A case study can help identify the important contributing factors for the relationship between ERP and business performance. This paper therefore, investigates this topic by analyzing a critical case – study consisting of an Egyptian SME branch of multinational company. The results indicate that in general many benefits in business performance were achieved after implementing the ERP. This also indicates the positive contribution of ERP on business performance but also suggests the limited applicability of this positive relationship according to specific factors to be researched.

Reference:

Ahmed A.Elragal and Ayman M-Al-Serafi,2011. The Effect of ERP System Implementation on Business Performance: An Exploratory Case-Study. IBIMA Publishing. Article ID 670212 (2011),20 pages.

Keywords : Enterprise Resource Planning (ERP)system, business performance, case-study analysis

1. Introduction

The use of enterprise resource planning software (ERP) has become increasingly more common in a lot of today's business. The reason for this selection is that the financial benefits have been analyzed many times before and do not give a direct contribution of the effect of the ERP system in specific.

This article will be dedicated for describing the background of the company in focus, the IT company in focus and the ERP adoption in the company. The company selected is a multinational company branch located in Egypt. The multinational company is headquartered in Europe and is a manufacturer of speciality chemicals. The company will be referred in this paper as 'ChemCo' to protect the company's identity.

2. Why Firms Invest in ERP?

Better management, better operations, better information availability and reengineering procedures, which are all reasons for acquiring ERP. Other business reason include enhancing cooperation and teamwork between employees in the company. In addition, benefits expected from implementation of ERP systems include tangible benefits like reducing costs, reducing operations time and a lean organization, while intangible benefits like information integration, better information quality and increase in customer satisfaction also exist. ERP implementation projects normally involve internal IT & business personnel from the adopting firm as well as external consultants from implementation partners in order to be successful.

'ChemCo' is competing worldwide with more than 100 branches and in over five continents. It produces specialty chemicals including : emulsions, glues, cleaning function chemical, paper treatment chemicals, textile chemicals and non textile chemical. ChemCo produces raw material only which are provided to manufacturing firms as supplies to their production lines. ChemCo's branch in Egypt was bigger in the past with 150 employees but currently it only has 83 employees (with 30 other employees outsourced). During the ERP implementation the company had 164 employees but this was reduced to 83 because some non profitable production lines were shut over the years after ERP implementation.

As far as the Egyptian branch of ChemCo under study in this paper, it started in 1997 after a merger between a chemicals company and a pharmaceuticals company took place creating ChemCo Egypt. The administration and headquarters of the Egyptian branch is located in Cairo while the production plants is located near the Egyptian city of Alexandria. The headquarters in Cairo consist of the IT department, business units, and sales force teams. The production plant in Alexandria is responsible for production, dispatch and handling customer

3. Problem

There are different utilization issues that face business that decides to go forward and implement ERP. Most of the implementation failures for ERP were early ERP adoptions which did not have strong business justification. This was attributed to the misalignment between the objectives from the ERP implementation and the strategic organizational and IT goals. If such a misalignment exists, it can cause the business to lose the advantages of ERP systems. On the other hand, investing into ERP systems without any objectives other than following the market or industry trend might also cause an ERP project to fail.

In addition, ERP failure can be associated to internal or external aspects to the organization. Internally, failure is associated to the insufficient business knowledge, while externally failure is associated to the weak technical skills of the consultants helping in the ERP implementation.

The IT of ChemCo before implementing the ERP consisted of legacy systems running the business based on IBM AS400 infrastructure (with 4 business modules acquired from software providers and 1 module for sales order and analysis was developed locally inside the company). The implementation of ERP in this company for technical reason involving the replacement of legacy systems which had no further support, more integration and preventing the problems associated with the Y2K issues.

4. Implementation

Implementation ERP started in April 2009, required the team to be very quick and rushed in order to transform quickly before Y2K problem hits the company. Implementation was based on the Conference Room Pilot (CRP) approach, which implemented the foundation, financial, sales and receivables, purchasing and payables, fixed asset & budgeting and production modules.

Implementation was a full module one which used 13 out of the available modules. The modules not used were not related to the business which included applications such as contract management, project costing and budgeting.

For the ERP implementation, ChemCo had the implementation team involved a project management board from the company, employees and external consultants. The project management team consisted of the IT manager, accounting manager and a production specialist. The project management team was involved in general project management activities in addition to setup and CRP of the ERP system with the external consultants. The IT department was mainly responsible for sales and receivables modules while the production department was mainly responsible for the production modules. The project management team received direct product training from external consultant and learned about the application from the manual books. The project management team was then responsible for training the end users of the ERP system, which was sufficient training according to the IT manager.

In Januari 2000 an initial Go-live with a few modules took place ending a semi-finished implementation in a year. The phased Go – Live (continuation of implementation sub projects) schedule was Foundation, Sales & Receivables and Financials in Januari 2000, production in March 2000 and purchasing, payables, fixed assets and budgeting in June 2000. From September 2000 till May 2001 continuous development of reporting interfaces and solutions linked to the ERP system was done by consultants.

5. Conclusion

After analyzing and contrasting the response of the financial, operations and logistics manager at the ChemCo, the ERP system was very successful in providing more knowledge to employee about business processes, reduce the number of errors doing task a little with no substantial effect, helps saving a lot of time doing tasks and jobs by eliminating the number of tasks needed to finish the business process. The ERP also has shortened the time needed to deliver products to the customer, has a great effect on the capability of the company to produce or provide more products and services, has reduced the amount of inventory, improved greatly the capability to respond to customer, has reduced the number of errors in shipping and sales returns, and has a great effect in improving communication with customers and integration with partners.

However, both the operations and logistics managers have stated that the ERP system did not decrease time needed on the long run to produce a single item of production. The logistic manager have agreed that the ERP system has increased customer satisfaction however the operations manager said that the only sometimes customer became satisfied after implementing the ERP.